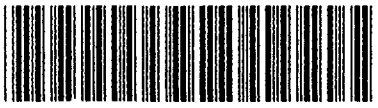
1851



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QUALITY CONTROL BOARD
LOS ANGELES REGION

Second Quarter Groundwater Monitoring at Stoody Company City of Industry, California

Clayton Project No. 33043.10

July 2, 1991

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CONTENTS

1.0 INTRODUCTION

On December 26, 1990, Ms. Nicole Jafari, Industrial Engineer with Stoody Company, authorized Clayton Environmental Consultants, Inc. to perform the second of four groundwater monitoring events required by the California Regional Water quality Control Board Los Angeles Region (CRWQCB), as stated in their October 22, 1990, workplan directive (File No. AB105.263).

This report documents the results of the second quarter of groundwater monitoring at the Stoody Company facility located at 16425 Gale Avenue, City of Industry, California (Figure 1, Appendix A). The first quarter report was previously submitted to the CRWQCB on March 8, 1991. Activities conducted during this second quarter of monitoring included measurements of water levels in the five onsite monitoring wells (MW-1, MW-2, MW-3, MW-4, and MW-5), and sampling and analysis of groundwater from these five wells. Historic data from the first quarterly sampling event is in Appendix B.

The quarterly groundwater monitoring was performed in accordance with the Terms and Conditions described in Clayton's Proposal No. 90-SEE-164 dated December 18, 1990. Clayton received written authorization to proceed with the groundwater monitoring from Ms. Nicole Jafari on December 26, 1990.

2.0 FINDINGS

Water level measurements and groundwater samples were collected from five onsite monitoring wells at the Stoody facility as part of the second quarter of a quarterly groundwater monitoring program.

Eleven compounds were detected above the analytical limits of detection using EPA Method 524.2 for volatile organic compounds. A summary table of results is provided in Appendix A. The compounds detected in the wells include: carbon tetrachloride, chloroform, 1,2-dichloroethane, 1,1-dichloroethene, trans 1,2-dichloroethene, cis 1,2-dichloroethene, methylene chloride, tetrachloroethene, 1,1,1-trichloroethane, trichloroethene, and trichlorofluoromethane.

The most recent laboratory analytical report shows that the compounds detected in the downgradient monitoring wells are present at similar concentrations as in the upgradient well, although some variations in concentrations are noted from well to well. For example, trichloroethene is reported at 30 µg/L in Well MW-4 (upgradient) and at 77 µg/L in Well MW-3 (downgradient); and tetrachloroethene at 92 µg/L in Well MW-4 and at 66 µg/L in Well MW-3. Other reversing trends like this also occur in the reported laboratory data.

These conditions, coupled with the results of previous analyses performed by Clayton field and laboratory personnel, suggest an offsite source may be responsible for the compounds detected in the groundwater samples. The relatively high detections of tetrachloroethene in samples from MW-1, MW-2, MW-4, and MW-5 support this conclusion.

3.0 FIELD ACTIVITIES

Water-level measurement and groundwater sample collection from Monitoring Wells MW-1 through MW-5, occurred on May 14, 1991. Procedures followed during these activities are outlined below.

3.1 WATER-LEVEL MEASUREMENTS

Water-level measurements were taken on May 14, 1991, for Wells MW-1 through MW-5 using a Teflon™ measuring tape. The measurements were then retaken with an electronic water level measuring device (Slope Indicator Company Water Level Indicator, Model 51453). Water level measurements are accurate to within 0.01 inches and ranged from 30.02 feet to 32.41 feet (Appendix A, Table 1). Groundwater flow direction was measured to be flowing in a north-northwest direction with a vertical gradient of 0.003 feet/foot (Appendix A, Figure 2).

3.2 GROUNDWATER SAMPLING

Groundwater Monitoring Wells MW-1 through MW-5 were sampled on May 14, 1991. Prior to sampling, the wells were purged using a PVC bailer attached to a truck-mounted mast/pulley system (a well development rig). The bailer and attached cable were steam-cleaned between wells. The wells were sampled in the following order: MW-4, MW-5, MW-2, MW-1, and MW-3.

A minimum of three casing volumes of water was removed from each well. Water quality parameters (pH, temperature, and electrical conductivity) were measured after removal of 18, 36, and 54 gallons of water. Purging was discontinued after the minimum number of casing volumes were removed and the water quality parameters stabilized to within $\pm$ 10 percent of the parameter values obtained from the previous measurements. Water quality parameters are provided on the water sampling field survey forms (Appendix C).

Precleaned, hand-held Lexan™ bailers attached to nylon line were used to collect the groundwater samples. The bailers were washed with tap water and Alconox™ detergent between sampling events. The washing was followed by a double-rinsing with deionized water. To further enhance cleanliness during the sampling procedures, the area immediately adjacent to each well was covered with plastic sheeting. In addition,

Clayton personnel wore precleaned Neoprene™ gloves during sample collection and handling.

The samples were collected using the container and preservation guidelines of the U.S. Environmental Protection Agency (EPA), 40 CFR 136. After being filled with groundwater, the sample containers were labeled, wrapped in shock-absorbing foam sheeting, and placed on ice in a portable cooler.

Within 24 hours of collection, the samples were transported, under standard chain-of-custody procedures, to a Department of Health Services (DHS) certified laboratory for analysis. Purged groundwater was placed in five Class 17-H, 55-gallon drums. The drums were labeled and placed onsite for disposal by the Stoody Company.

4.0 LABORATORY ANALYTICAL RESULTS

4.1 VOC AND TRPH ANALYSES

Laboratory analysis was provided by Enseco-CRL, Inc. located in Garden Grove, California. The laboratory is certified by the California Department of Health Services (DHS). Laboratory results are summarized in Tables 2, 3, 4, and 5 (Appendix A), and presented in their entirety in Appendix D.

Groundwater samples were analyzed using EPA Method 524.2 for volatile organic compounds and EPA Method 180.1 for turbidity. The groundwater samples collected from Well MW-5 were also subjected to EPA Method 418.1 for total recoverable petroleum hydrocarbons (TRPH).

As reported in the summary table of results for EPA Method 524.2 (Table 2), five of the compounds detected in the wells were found in concentrations which exceed the EPA maximum contaminant level (MCL) or DHS drinking water action level (DWAL) for the corresponding compounds.

Carbon tetrachloride was detected at a concentration of 1.0 microgram per liter (µg/L). This concentration exceeded the MCL for this compound of 0.5 µg/L. 1,2-Dichloroethane was detected only in Well MW-3 at a concentration of 0.8 µg/L. This concentration exceeds the MCL for this compound of 0.5 µg/L. 1,1-Dichloroethene was detected at concentrations ranging from 12 to 49 µg/L. These concentrations exceed the MCL for this compound of 6.0 µg/L. Tetrachloroethene was detected at concentrations ranging from 66 to 140 µg/L. These concentrations exceed the DHS DWAL for this compound of 5 µg/L. Trichloroethene was detected at concentrations ranging from 30 to 77 µg/L. These concentrations exceed the DHS DWAL for this compound of 5 µg/L.

Six compounds were detected in the wells in concentrations below the MCL or DWAL. Chloroform was detected in concentrations ranging from 0.52 to 1.0 µg/L. These concentrations are below the MCL for this compound of 100 µg/L. Cis 1,1-dichloroethene was detected at a concentration of 2.7 µg/L. This concentration is below the DHS DWAL for this compound of 6.0 µg/L.

Methylene chloride was detected at concentrations ranging from 3.0 to 3.3 µg/L. These concentrations are below the DHS DWAL for this compound of 40 µg/L. 1,1,1-Trichloroethene was detected at concentrations ranging from 1.1 to 7.6 µg/L. These concentrations are below the MCL for this compound of 200 µg/L. Trichlorofluoromethane was detected at a concentration of 1.3 µg/L. This concentration is below the DHS DWAL for this compound of 150 µg/L.

As shown in the summary table of results for EPA Method 418.1 for TRPH in Well MW-5 (Table 4), analytical results report that TRPH was detected at a concentration of 1.0 milligram per liter (mg/L).

4.2 TURBIDITY ANALYSIS

The laboratory reported relatively high turbidity readings ranging from 88 to 780 Nephelometric Turbidity Units (NTUs). Although these numbers are high, Clayton has made two observations that we believe support our opinion that these high readings have not affected the validity of the VOC analysis and that the reported concentrations represent actual field conditions.

The wells were purged from throughout their casing lengths prior to sampling, disturbing sediment in the bottom of the wells and creating unrepresentative field conditions for each well. The suspended particles were seen, in the field, to fall out of suspension very quickly. Discussion with the laboratory revealed that prior to turbidity testing they agitated the sample, thereby reintroducing particulate matter into the water that is not part of the actual suspension that occurs in the field.

The sample used for the turbidity test was collected in an individual 100 milliliter (ml) container and was separate from the samples used for VOC analyses. The samples used for the VOC analyses were collected in 40 ml vials, had very little sediment in them, and were not agitated prior to analysis.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Clayton has performed groundwater monitoring quarterly at the Stoody Company facility for about 1 to 1-1/2 years. During this time, the laboratory results from groundwater analyses have not provided much in the way of trends of concentrations of the various VOCs detected in the groundwater from the onsite monitoring wells.

Several reversing trends have been observed in the data related to high and low concentrations of different VOCs in the samples from different wells.

These "non-trends" become the trends with no clear resolution with the available laboratory and field data. However, the recent laboratory analyses from MW-1, MW-2, MW-4, and MW-5 support the conclusion that a source of contamination may be present upgradient of the Stoody facility.

To address the presence or absence of an upgradient source of contamination, Clayton recommends reviewing, compiling and analyzing data from existing upgradient monitoring wells as may be available in the files of the CRWQCB and the Los Angeles County Department of Public Works. We will compare the laboratory results available to the data we have concerning the Stoody Company, to see if we can tell if an upgradient contamination source is present east of the facility. Depending on the results of this literature search, additional groundwater investigation may be necessary.

6.0 SCHEDULE FOR NEXT GROUNDWATER MONITORING EVENT

The next quarterly groundwater monitoring report is due to the CRWQCB on September 1, 1991. We anticipate sampling the wells in late July or early August 1991.

The information and opinions rendered in this report are exclusively for use by the Stoody Company. Clayton Environmental Consultants, Inc. will not distribute this report without your consent except as may be required by law or court order. The information and opinions expressed in this report are given in response to our limited assignment and should be evaluated and implemented only in light of that assignment. We accept responsibility for the competent performance of our duties in executing the assignment and preparing this report in accordance with the normal standards of our profession but disclaim any responsibility for consequential damages.

This report submitted by: FOR:

Andre LaMontagne
Geologist

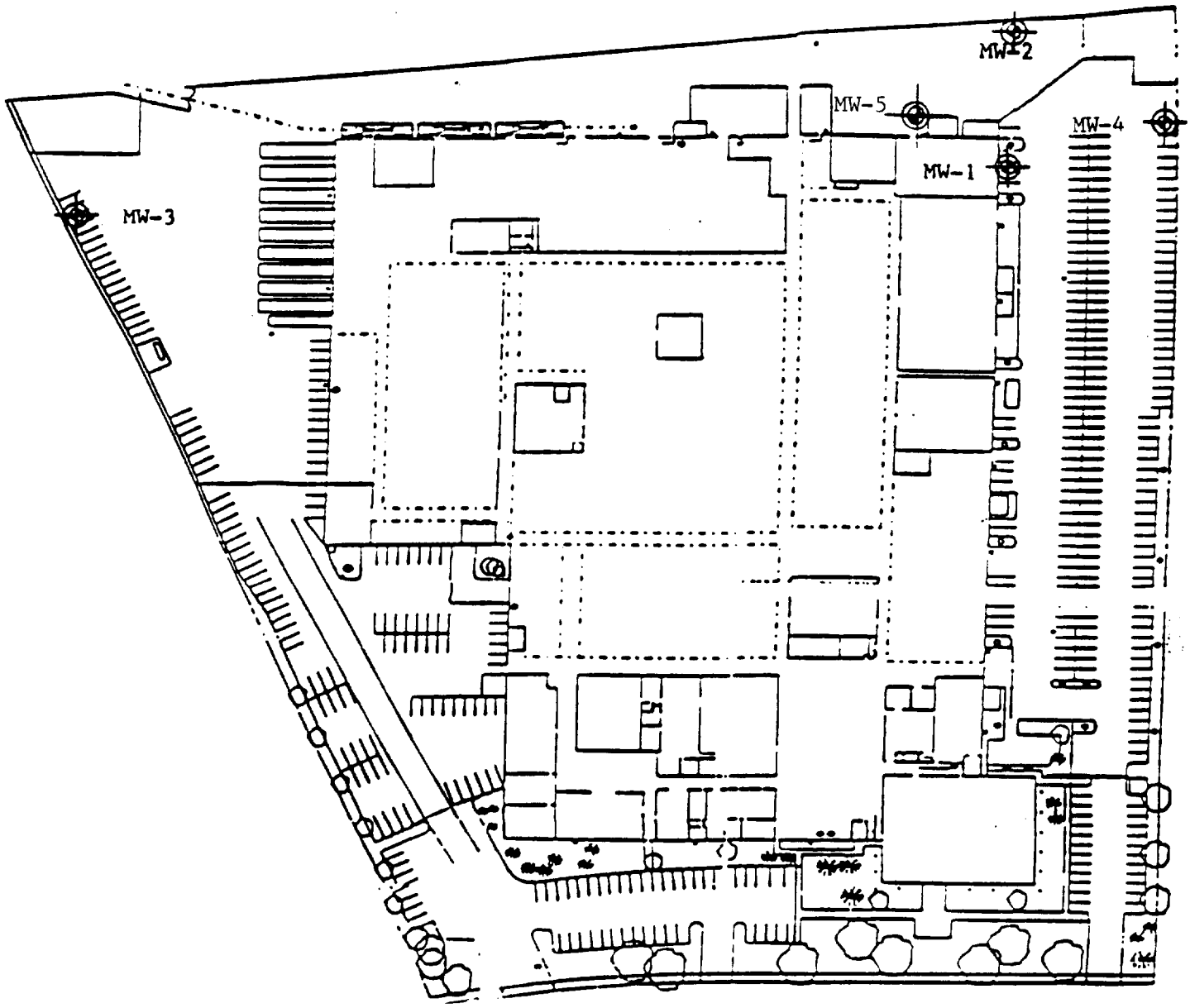
This report reviewed by:

David H. Randell
Registered Geologist, No. 3977
Manager, Environmental Engineering
Pacific Operations

July 2, 1991

APPENDIX A

FIGURES AND TABLES

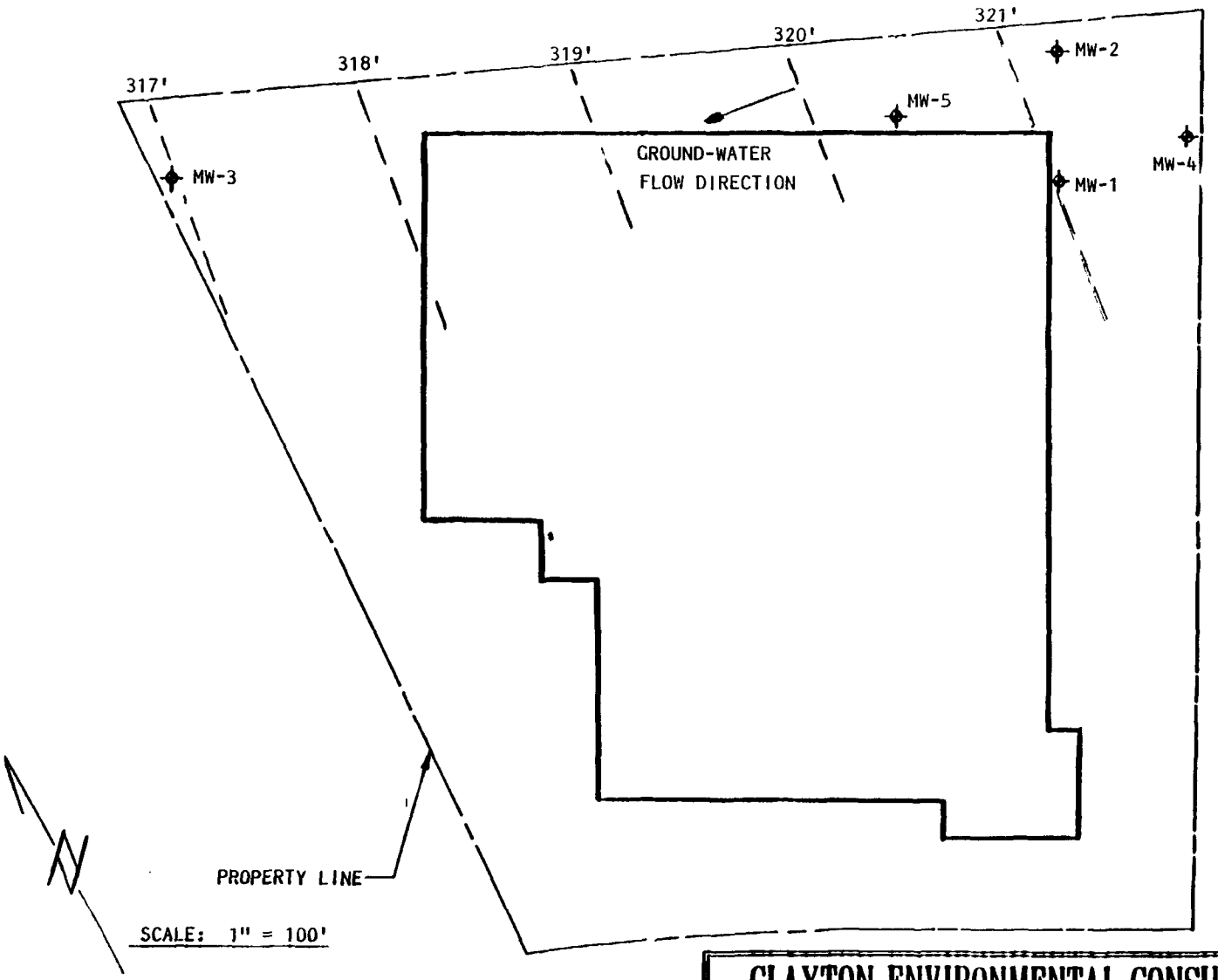


MONITORING WELL LOCATION

SCALE: 1 INCH = 150 FEET

NORTH

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.	FIGURE
APPROXIMATE LOCATIONS OF MONITORING WELLS	1
STOODY COMPANY INDUSTRY, CALIFORNIA PROJECT NO. 33043.00	3/91



CLAYTON ENVIRONMENTAL CONSULTANTS, INC.	FIGURE
GROUNDWATER GRADIENT AND FLOW DIRECTION	2
THE STOODY COMPANY 16425 GALE AVENUE CITY OF INDUSTRY, CA	CLAYTON PROJECT NO. 33043.00
	7/91

Table 1
Groundwater Monitoring Well Data
at
Stoody Company
City of Industry, California
Clayton Project No. 33043.00
Sampling Dates: May 14, 1991

Elevations (feet)					
Monitoring Well	**MW-1**	**MW-2**	**MW-3**	**MW-4**	**MW-5**
California Coordinates Northerly	4 115 352.91	4 115 446.16	4 115 618.47	4 115 317.93	4 115 437.54
California Coordinates Easterly	4 304 877.74	4 305 930.76	4 304 433.56	4 305 006.96	4 304 813.76
Elevation at top of well casing (MSL)	352.18	351.12	349.34	353.55	351.64
Total depth of well after development	44.90	44.95	44.85	48.68	49.86
Date of measurement	5/14/91	5/14/91	5/14/91	5/4/91	5/4/91
Depth to water from top of casing	31.15	30.02	32.41	31.73	30.75
Elevation of water (MSL)	321.03	321.10	316.93	321.82	320.89

Table 2
Summary Table of Results for EPA Method 524.2 (Concentrations in μg/L)
for Volatile Organic Compounds
at
Stoody Company
City of Industry, California
Clayton Project No. 33043.00
Sampling Dates: May 14,1991

Monitoring Well No.	Carbon tetra-chloride	Chloro-form	1,2-Dichloro-ethane	1,1-Dichloro-ethene	Cis 1,2-Dichloro-ethene	Trans 1,2-Dichloro-ethene	Methylene Chloride	Tetra-chloro-ethene	1,1,1-Trichloro-ethane	Trichloro-ethene	Trichloro-flouro Methane
MW-1	ND	ND	ND	14	2.7	ND	3.3	100	ND	ND	ND
MW-2	ND	ND	ND	13	ND	ND	3.0	140	ND	ND	ND
MW-3	1.0	1.0	0.8	49	ND	ND	ND	66	7.6	77	ND
MW-4	ND	0.52	ND	12	2.7	ND	ND	92	1.1	30	1.3
MW-5	ND	ND	ND	16	2.7	ND	ND	130	ND	ND	ND
DHS DWAL or MCL for Corresp. Compounds	*0.5	*100	*0.5	*6.0	6.0	6.0	40	5.0	*200	*5.0	150
LOD for Corresp. Compounds	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Method Blank	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND: Not detected at or above limit of detection
μg/L: Micrograms per liter (generally equivalent to parts per billion)
NA: Information not available
DHS: State of California Department of Health Services
DWAL: Drinking water action level
***MCL:** Maximum contaminant level
LOD: Limit of detection

Table 3
Summary Table of Results for EPA Method 180.1
for Turbidity
at
Stoody Company
City of Industry, California
Clayton Project No. 33043.00
Sampling Dates: May 14, 1991

Sample Identification	Turbidity (N.T.U.)*
MW-1	740
MW-2	780
MW-3	480
MW-4	94
MW-5	88
Limit of detection	0.1

<: Less than the indicated limit of detection (LOD)
*NTU: Nephelometric Turbidity Units

Table 4
Summary Table of Results for EPA Method 418.1 for
Total Petroleum Hydrocarbons (Concentrations in mg/L)
for Monitoring Well MW-5
at
Stoody Company
City of Industry, California
Clayton Project No. 33043.00
Sampling Date: May 14, 1991

Sample Identification Number	Total Recoverable Petroleum Hydrocarbons
MW-5	1.0

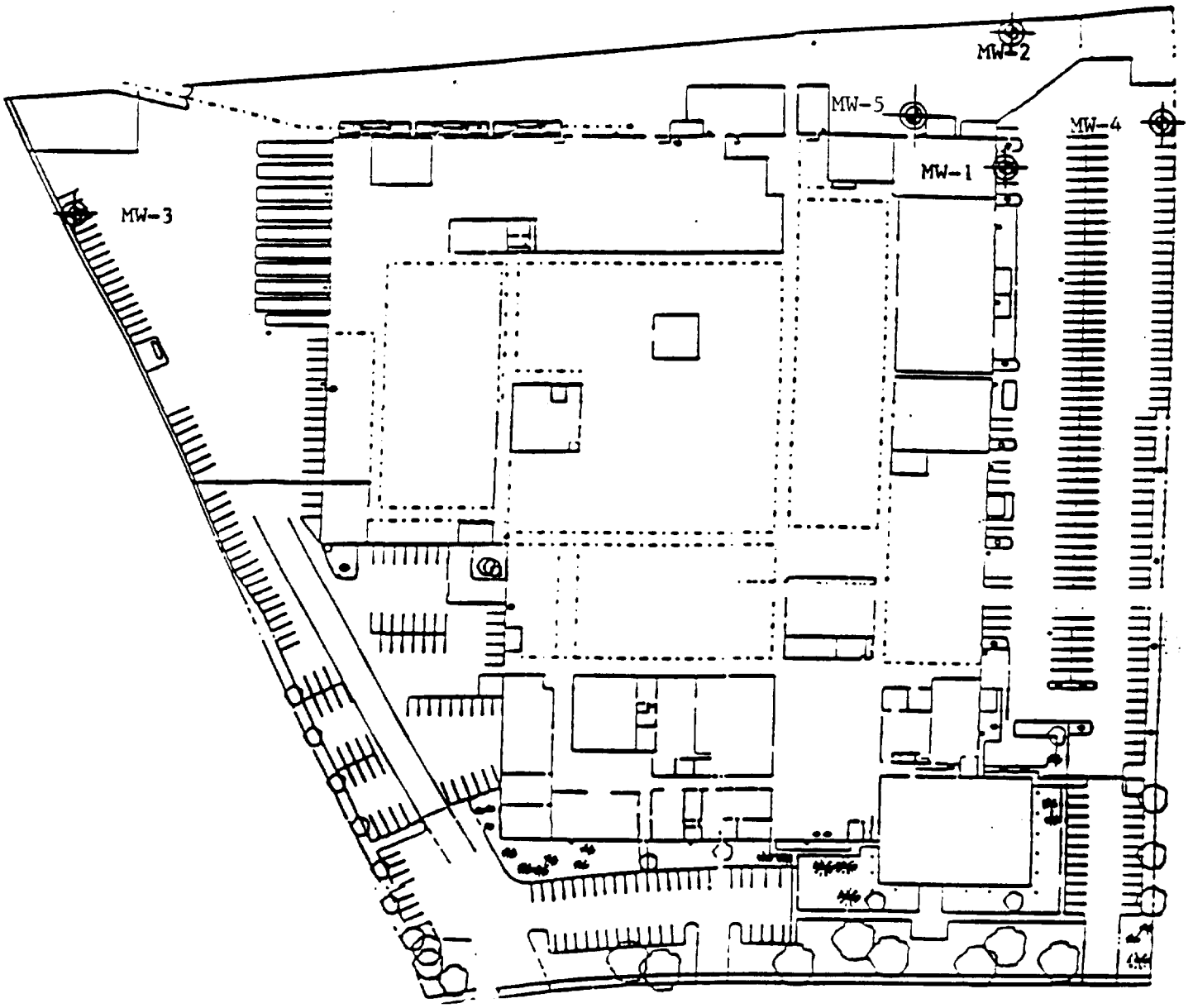
Limit of detection: 1.0
mg/L: Milligrams per liter (generally equivalent to parts per million)

Table 5
Summary Table of Results for Average Pre-Sample pH Values
at
Stoody Company
City of Industry, California
Clayton Project No. 33043.00
Sampling Dates: December 27, 1990 and February 13, 1991

MONITORING WELL NUMBER	pH
MW-1	7.81
MW-2	7.87
MW-3	7.76
MW-4	7.89
MW-5	7.91

APPENDIX B

HISTORIC FIGURES AND TABLES

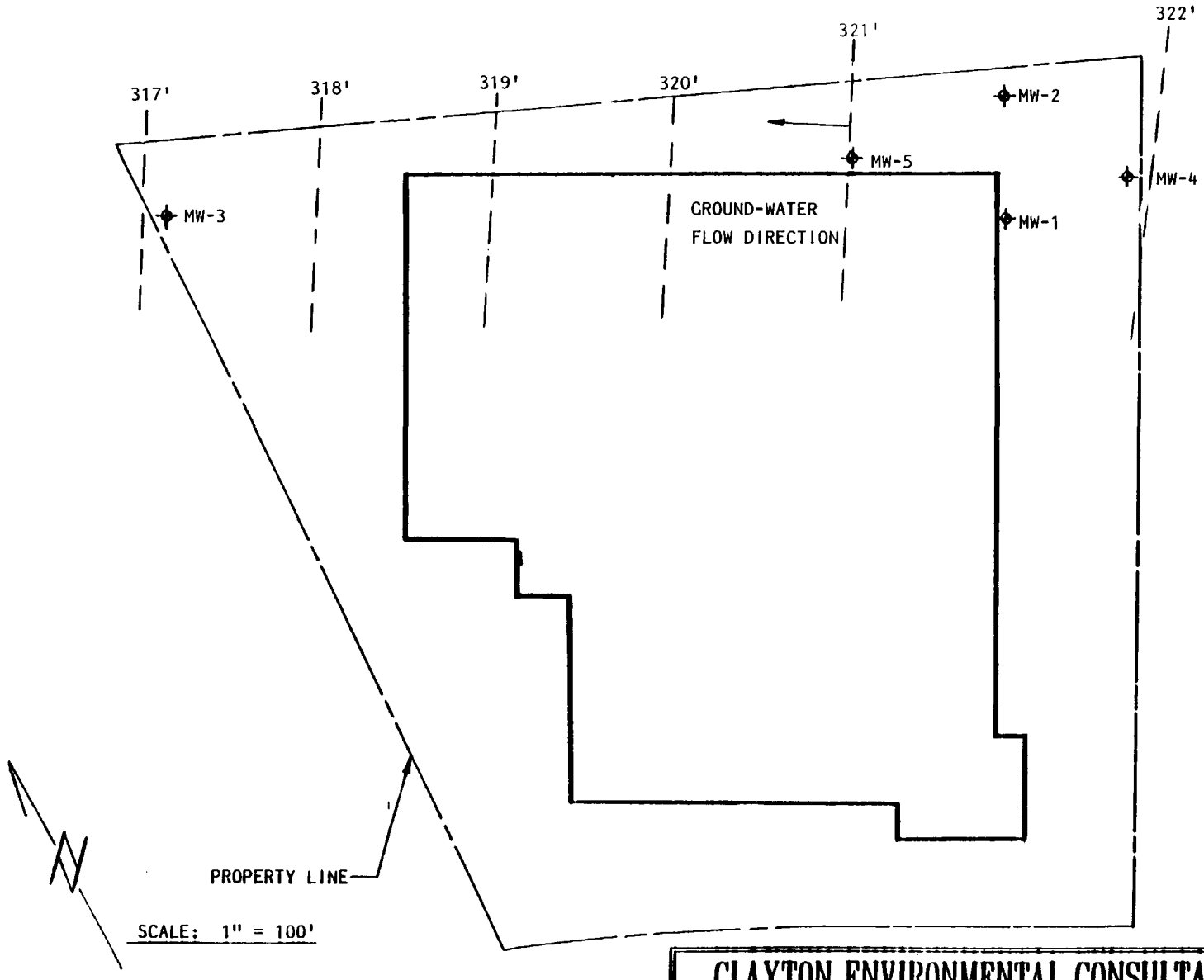


MONITORING WELL LOCATION

SCALE: 1 INCH = 150 FEET

NORTH

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.	FIGURE
APPROXIMATE LOCATIONS OF MONITORING WELLS	1
STOODY COMPANY INDUSTRY, CALIFORNIA — PROJECT NO. 33043.00	3/91



CLAYTON ENVIRONMENTAL CONSULTANTS, INC.	FIGURE
GROUNDWATER GRADIENT AND FLOW DIRECTION	2
THE STOODY COMPANY 16425 GALE AVENUE CITY OF INDUSTRY, CA	CLAYTON PROJECT NO. 33043.00
	3/91

Table 1
Groundwater Monitoring Well Data
at
Stoody Company
City of Industry, California
Clayton Project No. 33043.00
Sampling Dates: December 27, 1990 and February 13, 1991

Elevations (feet)					
Monitoring Well	**MW-1**	**MW-2**	**MW-3**	**MW-4**	**MW-5**
California Coordinates Northerly	4 115 352.91	4 115 446.16	4 115 618.47	4 115 317.93	4 115 437.54
California Coordinates Easterly	4 304 877.74	4 305 930.76	4 304 433.56	4 305 006.96	4 304 813.76
Elevation at top of well casing (MSL)	352.18	351.12	349.34	353.55	351.64
Total depth of well after development	44.90	44.95	44.85	48.68	49.86
Date of measurement	3/6/91	3/6/91	3/6/91	3/6/91	3/6/91
Depth to water from top of casing	31.12	30.04	32.17	31.65	30.62
Elevation of water (MSL)	321.06	321.08	317.17	321.90	321.02

Table 2
Summary Table of Results for EPA Method 524.2 (Concentrations in µg/L)
for Volatile Organic Compounds
at
Stoody Company
City of Industry, California
Clayton Project No. 33043.00
Sampling Dates: December 27, 1990 and February 13, 1991

Monitoring Well No.	Carbon tetra-chloride	Chloro-form	1,2-Dichloro-ethane	1,1-Dichloro-ethene	Cis 1,2-Dichloro-ethene	1,2-Dichloro-ethene (total)	Methylene Chloride	Tetra-chloro-ethene	1,1,1-Trichloro-ethane	Trichloro-ethene	Trichloro-flouro Methane
MW-1	1.0	0.8	ND	18	1.5	1.5	2.6	130	1.9	50	2.6
MW-2	0.8	0.7	ND	14	1.5	1.5	4.5	140	2.5	35	1.8
MW-3	0.8	0.9	0.7	25	ND	ND	3.6	55	5.1	65	ND
MW-4	0.6	0.6	ND	11	1.9	1.9	4.0	100	1.4	32	1.7
MW-5	ND	0.7	ND	16	2.1	2.1	ND	100	1.8	34	2.2
DHS DWAL or MCL for Corresp. Compounds	*0.5	*100	*0.5	*6.0	6.0	NA	40	5.0	*200	*5.0	150
LOD for Corresp. Compounds	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Trip Blank	ND	ND	ND	ND	ND	ND	0.9/1.2	ND/0.7	ND	ND	ND
Method Blank	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND: Not detected at or above limit of detection
µg/L: Micrograms per liter (generally equivalent to parts per billion)
NA: Information not available
DHS: State of California Department of Health Services
DWAL: Drinking water action level
*MCL: Maximum contaminant level
LOD: Limit of detection

Table 3
Summary Table of Results for EPA Method 180.1
for Turbidity
at
Stoody Company
City of Industry, California
Clayton Project No. 33043.00
Sampling Dates: December 27, 1990 and February 13, 1991

Sample Identification	Turbidity (N.T.U.)*
MW-1	6.4
MW-2	4.5
MW-3	9.6
MW-4	7.1
MW-5	1.5
Limit of detection	0.1

<: Less than the indicated limit of detection (LOD)
*NTU: Nephelometric Turbidity Units

Table 4
Summary Table of Results for EPA Method 418.1 for
Total Petroleum Hydrocarbons (Concentrations in mg/L)
for Monitoring Well MW-5
at
Stoody Company
City of Industry, California
Clayton Project No. 33043.00
Sampling Date: February 13, 1991

Sample Identification Number	Total Recoverable Petroleum Hydrocarbons
MW-5A	<1.0
MW-5B	<1.0

Limit of detection: 1.0
mg/L: Milligrams per liter (generally equivalent to parts per million)

Table 5
Summary Table of Results for Average Pre-Sample pH Values
at
Stoody Company
City of Industry, California
Clayton Project No. 33043.00
Sampling Dates: December 27, 1990 and February 13, 1991

MONITORING WELL NUMBER	pH
MW-1	7.81
MW-2	7.87
MW-3	7.76
MW-4	7.89
MW-5	7.91

APPENDIX C

WATER SAMPLING FIELD SURVEY FORMS

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CLAYTON ENVIRONMENTAL CONSULTANTS, INC.
WATER SAMPLING FIELD SURVEY FORM

Job No: 33043.00 Site: Stoody Date: 5/14/91

Well No: MW-1 Sampling Team: LaMontagne

Sampling Method:

Field Conditions: Sunny, 80°, slight breeze

Describe Equipment Decontamination Before Sampling This Well:

Wash in alconox solution
Twice rinse in potable water
Final rinse in deionized water

Total Depth of Well: 45 feet Time: 12:45 - 12:59 Depth to Water Before Purging: 31.15 feet

Volume Height of Water Column:		Diameter 2-inch	Diameter 4-inch		Volume		Purge Factor		Volume To Purge
14 feet	*	.16	.65	=	9.1 gal	*	3	=	27 Gal.

Depth Purging From: Total water column

Time	Volume Purged	pH	Conductivity	T	Comments
12:47	0 Gal		1.64	80.9	Clear
12:51	18 Gal		1.52	43.1	Slightly cloudy, light brown
12:54	36 Gal		1.55	72.4	Same
12:57	54 Gal		1.53	71.3	Same
					Noted a floating product in drum but not sure from where it came i.e. barrel or well.

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CLAYTON ENVIRONMENTAL CONSULTANTS, INC.
WATER SAMPLING FIELD SURVEY FORM

Job No: 33043.00 Site: Stoody Date: 5/14/91

Well No: MW-2 Sampling Team: LaMontagne

Sampling Method:

Field Conditions: Sunny 78°

Describe Equipment Decontamination Before Sampling This Well:

Wash in alconox solution
Twice rinse in potable water
Final rinse in deionized water

Total Depth of Well: 45 feet Time: 12:17 - 12:37 Depth to Water Before Purging: 30.02 feet

Volume Height of Water Column: 15 feet	*	Diameter 2-inch .16	Diameter 4-inch .65	=	Volume 9.8 gal	*	Purge Factor 3	=	Volume To Purge 29 Gal

Depth Purging From: Total water column

Time	Volume Purged	pH	Conductivity	T	Comments
12:18	0 Gal		1.77	86.1	Very clear
12:21	18 Gal		1.60	75.6	Slightly cloudy; light brown
12:24	36 Gal		1.58	72.3	" " " "
12:27	54 Gal		1.56	71.2	" " " "

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CLAYTON ENVIRONMENTAL CONSULTANTS, INC.
WATER SAMPLING FIELD SURVEY FORM

Job No: 33043.00 Site: Stoody Date: 5/14/91

Well No: MW-3 Sampling Team: LaMontagne

Sampling Method:

Field Conditions: Sunny, 82°, slight breeze

Describe Equipment Decontamination Before Sampling This Well:

Wash in alconox solution
Twice rinse in potable water
Final rinse in deionized water

Total Depth of Well: 45 feet Time: 1:26 - 1:39 Depth to Water Before Purging: 32.41 feet

Volume Height of Water Column:		Diameter 2-inch		Diameter 4-inch		Volume		Purge Factor		Volume To Purge
13 feet	*	.16		.65	=	8.4 gal	*	3	=	25 Gal

Depth Purging From: Total water column

Time	Volume Purged	pH	Conductivity	T	Comments
1:28	0 Gal		1.82	83.9	Clear
1:32	18 Gal		1.61	74.0	Slighty cloudy; light brown
1:34	36 Gal		1.58	70.6	" " " "
1:36	54 Gal		1.58	70.8	" " " "

Clayton
ENVIRONMENTAL
CONSULTANTS

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.
WATER SAMPLING FIELD SURVEY FORM

Job No: 33043.00 Site: Stoody Date: 5/14/91

Well No: MW-4 Sampling Team: LaMontagne

Sampling Method:

Field Conditions: Sunny, 70°

Describe Equipment Decontamination Before Sampling This Well:

Wash in alconox solution
Twice rinse in potable water
Final rinse in deionized water

Total Depth of Well: 49 feet Time: 10:04 - 10:26 Depth to Water Before Purging: 31.73 feet

Volume Height of Water Column:		Diameter 2-inch	Diameter 4-inch		Volume		Purge Factor		Volume To Purge
17 feet	*	.16	.65	=	11 gal	*	3	=	33 Gal

Depth Purging From: Total water column

Time	Volume Purged	pH	Conductivity	T	Comments
10:08	0 Gal		1.52	70.1	Top of well pretty clear, bottom of well some silt.
10:11	18 Gal		1.35	69.1	Cloudy, light brown.
10:15	36 Gal		1.37	70.6	" " "
10:18	54 Gal		1.42	70.6	" " "

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CONSULTANTS

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.
WATER SAMPLING FIELD SURVEY FORM

Job No: 33043.00 Site: Stoody Date: 5/14/91

Well No: MW-5 Sampling Team: LaMontagne

Sampling Method:

Field Conditions: Sunny, 75°

Describe Equipment Decontamination Before Sampling This Well:

Wash in alconox solution
Twice rinse in potable water
Final rinse in deionized water

Total Depth of Well: 50 feet Time: 10:44 - 11:37 Depth to Water Before Purging: 30.75 feet

Volume Height of Water Column:		Diameter 2-inch	Diameter 4-inch		Volume		Purge Factor		Volume To Purge
19 feet	*	.16	.65	=	12 gal	*	3	=	36 Gal

Depth Purging From: Total water column

Time	Volume Purged	pH	Conductivity	T	Comments
10:45	0 Gal		1.07	76.7	Very clear
10:49	18 Gal		1.25	72.3	Slightly cloudy, light brown, slow recharger
11:14	36 Gal		1.61	78.6	" " " " " "
11:35	54 Gal		1.71	80.8	Clear

APPENDIX D

LABORATORY REPORTS
CHAIN-OF-CUSTODY FORMS
AND QUALITY ASSURANCE DATA

Enseco
A Corning Company

Enseco - CRL
7440 Lincoln Way • Garden Grove, CA 92641
(714) 898-6370 • (213) 598-0458 • (800) LAB-1-CRL
FAX: (714) 891-5917

May 23 1991

CLAYTON ENVIRONMENTAL CONSULTANTS
5785 CORPORATE AVENUE
CYPRESS, CA 90630
ATTN: MR. ANDRE LAMONTAGNE

Analysis No.: G-9113408-001/005
Date Sampled: 14-MAY-1991
Date Sample Rec'd: 14-MAY-1991
Project: (33043.00) STOODY

Enclosed with this letter is the report on the chemical and physical analyses on the samples from ANALYSIS NO: G-9113408-001/005 shown above.

The samples were received by CRL in a chilled state, intact and with the chain-of-custody record attached.

Note that ND means not detected at the reporting limit expressed. The reporting limit is raised to reflect the dilution factor of the sample.

Preliminary data for Turbidity were provided on May 16, 1991 at 8:42 A.M.
Preliminary data for EPA 524.2 were provided on May 21, 1991 at 4:04 P.M.
Preliminary data for EPA 418.1 were provided on May 22, 1991 at 12:29 P.M.

Reviewed

Denise McDonald
Approved

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A Corning Company

Laboratory Report

CLAYTON ENVIRONMENTAL CONSULTANTS
5785 CORPORATE AVENUE
CYPRESS, CA 90630
ATTN: MR. ANDRE LAMONTAGNE

Analysis No.: G-9113408-001/005
Date Sampled: 14-MAY-1991
Date Sample Rec'd: 14-MAY-1991
Date Analyzed: 14-MAY-1991
15-MAY-1991
Sample Type: LIQUID

Project: (33043.00) STOODY

Sample ID	TPH Recoverable mg/L EPA 418.1-L	Turbidity NTU EPA 180.1
MW-1		740
MW-2		780
MW-3		480
MW-4		94.0
MW-5	1	88.0
Blank	ND(1)	ND(0.1)

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Laboratory Report

CLAYTON ENVIRONMENTAL CONSULTANTS
5785 CORPORATE AVENUE
CYPRESS, CA 90630
ATTN: MR. ANDRE LAMONTAGNE

Analysis No.: G-9113408-001
Date Sampled: 14-MAY-1991
Date Sample Rec'd: 14-MAY-1991
Sample Type: LIQUID
Date Prepared: 16-MAY-1991
Prep Method: EPA 5030 By: LR
Date Analyzed: 16-MAY-1991 By: LR

Project: (33043.00) STOODY
Sample ID: MW-1

Volatile Organic Compounds, EPA 524.2

Units: ug/L

Parameter	Sample Result	Sample RL	Blank Result	Blank RL	FN
Dichlorodifluoromethane	ND	2.5	ND	0.5	
Chloromethane	ND	2.5	ND	0.5	
Bromomethane	ND	2.5	ND	0.5	
Vinyl Chloride	ND	2.5	ND	0.5	
Chloroethane	ND	2.5	ND	0.5	
Methylene Chloride	3.3	2.5	1.1	0.5	#
Trichlorofluoromethane	ND	2.5	ND	0.5	
1,1-Dichloroethene	14	2.5	ND	0.5	
trans-1,2-Dichloroethene	ND	2.5	ND	0.5	
cis-1,2-Dichloroethene	2.7	2.5	ND	0.5	
1,1-Dichloroethane	ND	2.5	ND	0.5	
2,2-Dichloropropane	ND	2.5	ND	0.5	
Bromochloromethane	ND	2.5	ND	0.5	
Chloroform	ND	2.5	ND	0.5	
1,1-Dichloropropene	ND	2.5	ND	0.5	
1,2-Dichloroethane	ND	2.5	ND	0.5	
Dibromomethane	ND	2.5	ND	0.5	
1,1,1-Trichloroethane	ND	2.5	ND	0.5	
Carbon Tetrachloride	ND	2.5	ND	0.5	
Bromodichloromethane	ND	2.5	ND	0.5	
1,2-Dichloropropane	ND	2.5	ND	0.5	
1,3-Dichloropropane	ND	2.5	ND	0.5	
Trichloroethene	ND	2.5	ND	0.5	
Dibromochloromethane	ND	2.5	ND	0.5	
1,1,2-Trichloroethane	ND	2.5	ND	0.5	
Benzene	ND	2.5	ND	0.5	
Bromoform	ND	2.5	ND	0.5	
Tetrachloroethene	100	2.5	ND	0.5	
1,2-Dibromoethane	ND	2.5	ND	0.5	
1,1,1,2-Tetrachloroethane	ND	2.5	ND	0.5	
1,1,2,2-Tetrachloroethane	ND	2.5	ND	0.5	
Toluene	ND	2.5	ND	0.5	
Chlorobenzene	ND	2.5	ND	0.5	
Ethylbenzene	ND	2.5	ND	0.5	

Analyte associated with sample processing and analysis in the lab environment. An acceptable method blank must contain less than five times the reporting limit of this analyte for this method.

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Laboratory Report

CLAYTON ENVIRONMENTAL CONSULTANTS
5785 CORPORATE AVENUE
CYPRESS, CA 90630
ATTN: MR. ANDRE LAMONTAGNE

Analysis No.: G-9113408-001
Date Sampled: 14-MAY-1991
Date Sample Rec'd: 14-MAY-1991
Sample Type: LIQUID
Date Prepared: 16-MAY-1991
Prep Method: EPA 5030 By: LR
Date Analyzed: 16-MAY-1991 By: LR

Project: (33043.00) STOODY
Sample ID: MW-1

Volatile Organic Compounds, EPA 524.2

Units: ug/L

Parameter	Sample Result	Sample RL	Blank Result	Blank RL
p,m-Xylene	ND	2.5	ND	0.5
o-Xylene	ND	2.5	ND	0.5
Styrene	ND	2.5	ND	0.5
Isopropylbenzene	ND	2.5	ND	0.5
Bromobenzene	ND	2.5	ND	0.5
1,2,3-Trichloropropane	ND	2.5	ND	0.5
2-Chlorotoluene	ND	2.5	ND	0.5
n-Propylbenzene	ND	2.5	ND	0.5
1,3,5-Trimethylbenzene	ND	2.5	ND	0.5
4-Chlorotoluene	ND	2.5	ND	0.5
tert-Butylbenzene	ND	2.5	ND	0.5
1,2,4-Trimethylbenzene	ND	2.5	ND	0.5
sec-Butylbenzene	ND	2.5	ND	0.5
p-Isopropyltoluene	ND	2.5	ND	0.5
1,3-Dichlorobenzene	ND	2.5	ND	0.5
1,4-Dichlorobenzene	ND	2.5	ND	0.5
n-Butylbenzene	ND	2.5	ND	0.5
1,2-Dichlorobenzene	ND	2.5	ND	0.5
1,2,4-Trichlorobenzene	ND	2.5	ND	0.5
1,2-Dibromo-3-chloropropane	ND	2.5	ND	0.5
Hexachlorobutadiene	ND	2.5	ND	0.5
Naphthalene	ND	2.5	ND	0.5
1,2,3-Trichlorobenzene	ND	2.5	ND	0.5

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Laboratory Report

CLAYTON ENVIRONMENTAL CONSULTANTS
5785 CORPORATE AVENUE
CYPRESS, CA 90630
ATTN: MR. ANDRE LAMONTAGNE

Analysis No.: G-9113408-001
Date Sampled: 14-MAY-1991
Date Sample Rec'd: 14-MAY-1991
Sample Type: LIQUID

Project: (33043.00) STOODY

Volatile Organic Compounds, EPA 524.2 Surrogate Summary

Date	Parameter (Method)	Percent Recovery	Acceptable Range
16-MAY-1991	1,2 DICHLORETHANE-D4 (EPA 524.2)	93	74-134
16-MAY-1991	TOLUENE-D8 (EPA 524.2)	91	78-126
16-MAY-1991	BROMOFLUOROBENZENE (EPA 524.2)	91	82-121

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Laboratory Report

CLAYTON ENVIRONMENTAL CONSULTANTS
5785 CORPORATE AVENUE
CYPRESS, CA 90630
ATTN: MR. ANDRE LAMONTAGNE

Analysis No.: G-9113408-002
Date Sampled: 14-MAY-1991
Date Sample Rec'd: 14-MAY-1991
Sample Type: LIQUID
Date Prepared: 17-MAY-1991
Prep Method: EPA 5030 By: LR
Date Analyzed: 17-MAY-1991 By: LR

Project: (33043.00) STOODY
Sample ID: MW-2

Volatile Organic Compounds, EPA 524.2

Units: ug/L

Parameter	Sample Result	Sample RL	Blank Result	Blank RL	FN
Dichlorodifluoromethane	ND	2.5	ND	0.5	
Chloromethane	ND	2.5	ND	0.5	
Bromomethane	ND	2.5	ND	0.5	
Vinyl Chloride	ND	2.5	ND	0.5	
Chloroethane	ND	2.5	ND	0.5	
Methylene Chloride	3.0	2.5	1.1	0.5	#
Trichlorofluoromethane	ND	2.5	ND	0.5	
1,1-Dichloroethene	13	2.5	ND	0.5	
trans-1,2-Dichloroethene	ND	2.5	ND	0.5	
cis-1,2-Dichloroethene	ND	2.5	ND	0.5	
1,1-Dichloroethane	ND	2.5	ND	0.5	
2,2-Dichloropropane	ND	2.5	ND	0.5	
Bromochloromethane	ND	2.5	ND	0.5	
Chloroform	ND	2.5	ND	0.5	
1,1-Dichloropropene	ND	2.5	ND	0.5	
1,2-Dichloroethane	ND	2.5	ND	0.5	
Dibromomethane	ND	2.5	ND	0.5	
1,1,1-Trichloroethane	ND	2.5	ND	0.5	
Carbon Tetrachloride	ND	2.5	ND	0.5	
Bromodichloromethane	ND	2.5	ND	0.5	
1,2-Dichloropropane	ND	2.5	ND	0.5	
1,3-Dichloropropane	ND	2.5	ND	0.5	
Trichloroethene	ND	2.5	ND	0.5	
Dibromochloromethane	ND	2.5	ND	0.5	
1,1,2-Trichloroethane	ND	2.5	ND	0.5	
Benzene	ND	2.5	ND	0.5	
Bromoform	ND	2.5	ND	0.5	
Tetrachloroethene	140	2.5	ND	0.5	
1,2-Dibromoethane	ND	2.5	ND	0.5	
1,1,1,2-Tetrachloroethane	ND	2.5	ND	0.5	
1,1,2,2-Tetrachloroethane	ND	2.5	ND	0.5	
Toluene	ND	2.5	ND	0.5	
Chlorobenzene	ND	2.5	ND	0.5	
Ethylbenzene	ND	2.5	ND	0.5	

Analyte associated with sample processing and analysis in the lab environment. An acceptable method blank must contain less than five times the reporting limit of this analyte for this method.

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A Corning Company

Laboratory Report

CLAYTON ENVIRONMENTAL CONSULTANTS
5785 CORPORATE AVENUE
CYPRESS, CA 90630
ATTN: MR. ANDRE LAMONTAGNE

Analysis No.: G-9113408-002
Date Sampled: 14-MAY-1991
Date Sample Rec'd: 14-MAY-1991
Sample Type: LIQUID
Date Prepared: 17-MAY-1991
Prep Method: EPA 5030 By: LR
Date Analyzed: 17-MAY-1991 By: LR

Project: (33043.00) STOODY
Sample ID: MW-2

Volatile Organic Compounds, EPA 524.2

Units: ug/L

Parameter	Sample Result	Sample RL	Blank Result	Blank RL
p,m-Xylene	ND	2.5	ND	0.5
o-Xylene	ND	2.5	ND	0.5
Styrene	ND	2.5	ND	0.5
Isopropylbenzene	ND	2.5	ND	0.5
Bromobenzene	ND	2.5	ND	0.5
1,2,3-Trichloropropane	ND	2.5	ND	0.5
2-Chlorotoluene	ND	2.5	ND	0.5
n-Propylbenzene	ND	2.5	ND	0.5
1,3,5-Trimethylbenzene	ND	2.5	ND	0.5
4-Chlorotoluene	ND	2.5	ND	0.5
tert-Butylbenzene	ND	2.5	ND	0.5
1,2,4-Trimethylbenzene	ND	2.5	ND	0.5
sec-Butylbenzene	ND	2.5	ND	0.5
p-Isopropyltoluene	ND	2.5	ND	0.5
1,3-Dichlorobenzene	ND	2.5	ND	0.5
1,4-Dichlorobenzene	ND	2.5	ND	0.5
n-Butylbenzene	ND	2.5	ND	0.5
1,2-Dichlorobenzene	ND	2.5	ND	0.5
1,2,4-Trichlorobenzene	ND	2.5	ND	0.5
1,2-Dibromo-3-chloropropane	ND	2.5	ND	0.5
Hexachlorobutadiene	ND	2.5	ND	0.5
Naphthalene	ND	2.5	ND	0.5
1,2,3-Trichlorobenzene	ND	2.5	ND	0.5

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Laboratory Report

CLAYTON ENVIRONMENTAL CONSULTANTS
5785 CORPORATE AVENUE
CYPRESS, CA 90630
ATTN: MR. ANDRE LAMONTAGNE

Analysis No.: G-9113408-002
Date Sampled: 14-MAY-1991
Date Sample Rec'd: 14-MAY-1991
Sample Type: LIQUID

Project: (33043.00) STOODY

Volatile Organic Compounds, EPA 524.2 Surrogate Summary

Date	Parameter (Method)	Percent Recovery	Acceptable Range
17-MAY-1991	1,2 DICHLORETHANE-D4 (EPA 524.2)	96	74-134
17-MAY-1991	TOLUENE-D8 (EPA 524.2)	103	78-126
17-MAY-1991	BROMOFLUOROBENZENE (EPA 524.2)	100	82-121

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Laboratory Report

CLAYTON ENVIRONMENTAL CONSULTANTS
5785 CORPORATE AVENUE
CYPRESS, CA 90630
ATTN: MR. ANDRE LAMONTAGNE

Analysis No.: G-9113408-003
Date Sampled: 14-MAY-1991
Date Sample Rec'd: 14-MAY-1991
Sample Type: LIQUID
Date Prepared: 16-MAY-1991
Prep Method: EPA 5030 By: LR
Date Analyzed: 16-MAY-1991 By: LR

Project: (33043.00) STOODY
Sample ID: MW-3

Volatile Organic Compounds, EPA 524.2

Units: ug/L

Parameter	Sample Result	Sample RL	Blank Result	Blank RL	FN
Dichlorodifluoromethane	ND	0.5	ND	0.5	
Chloromethane	ND	0.5	ND	0.5	
Bromomethane	ND	0.5	ND	0.5	
Vinyl Chloride	ND	0.5	ND	0.5	
Chloroethane	ND	0.5	ND	0.5	
Methylene Chloride	ND	0.5	0.73	0.5	#
Trichlorofluoromethane	ND	0.5	ND	0.5	
1,1-Dichloroethene	49	0.5	ND	0.5	
trans-1,2-Dichloroethene	ND	0.5	ND	0.5	
cis-1,2-Dichloroethene	ND	0.5	ND	0.5	
1,1-Dichloroethane	ND	0.5	ND	0.5	
2,2-Dichloropropane	ND	0.5	ND	0.5	
Bromochloromethane	ND	0.5	ND	0.5	
Chloroform	1.0	0.5	ND	0.5	
1,1-Dichloropropene	ND	0.5	ND	0.5	
1,2-Dichloroethane	0.80	0.5	ND	0.5	
Dibromomethane	ND	0.5	ND	0.5	
1,1,1-Trichloroethane	7.6	0.5	ND	0.5	
Carbon Tetrachloride	1.0	0.5	ND	0.5	
Bromodichloromethane	ND	0.5	ND	0.5	
1,2-Dichloropropane	ND	0.5	ND	0.5	
1,3-Dichloropropane	ND	0.5	ND	0.5	
Trichloroethene	77	0.5	ND	0.5	
Dibromochloromethane	ND	0.5	ND	0.5	
1,1,2-Trichloroethane	ND	0.5	ND	0.5	
Benzene	ND	0.5	ND	0.5	
Bromoform	ND	0.5	ND	0.5	
Tetrachloroethene	66	0.5	ND	0.5	
1,2-Dibromoethane	ND	0.5	ND	0.5	
1,1,1,2-Tetrachloroethane	ND	0.5	ND	0.5	
1,1,2,2-Tetrachloroethane	ND	0.5	ND	0.5	
Toluene	ND	0.5	ND	0.5	
Chlorobenzene	ND	0.5	ND	0.5	
Ethylbenzene	ND	0.5	ND	0.5	

Analyte associated with sample processing and analysis in the lab environment. An acceptable method blank must contain less than five times the reporting limit of this analyte for this method.

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Laboratory Report

CLAYTON ENVIRONMENTAL CONSULTANTS
5785 CORPORATE AVENUE
CYPRESS, CA 90630
ATTN: MR. ANDRE LAMONTAGNE

Analysis No.: G-9113408-003
Date Sampled: 14-MAY-1991
Date Sample Rec'd: 14-MAY-1991
Sample Type: LIQUID
Date Prepared: 16-MAY-1991
Prep Method: EPA 5030 By: LR
Date Analyzed: 16-MAY-1991 By: LR

Project: (33043.00) STOODY
Sample ID: MW-3

Volatile Organic Compounds, EPA 524.2

Units: ug/L

Parameter	Sample Result	Sample RL	Blank Result	Blank RL
p,m-Xylene	ND	0.5	ND	0.5
o-Xylene	ND	0.5	ND	0.5
Styrene	ND	0.5	ND	0.5
Isopropylbenzene	ND	0.5	ND	0.5
Bromobenzene	ND	0.5	ND	0.5
1,2,3-Trichloropropane	ND	0.5	ND	0.5
2-Chlorotoluene	ND	0.5	ND	0.5
n-Propylbenzene	ND	0.5	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5	ND	0.5
4-Chlorotoluene	ND	0.5	ND	0.5
tert-Butylbenzene	ND	0.5	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5	ND	0.5
sec-Butylbenzene	ND	0.5	ND	0.5
p-Isopropyltoluene	ND	0.5	ND	0.5
1,3-Dichlorobenzene	ND	0.5	ND	0.5
1,4-Dichlorobenzene	ND	0.5	ND	0.5
n-Butylbenzene	ND	0.5	ND	0.5
1,2-Dichlorobenzene	ND	0.5	ND	0.5
1,2,4-Trichlorobenzene	ND	0.5	ND	0.5
1,2-Dibromo-3-chloropropane	ND	0.5	ND	0.5
Hexachlorobutadiene	ND	0.5	ND	0.5
Naphthalene	ND	0.5	ND	0.5
1,2,3-Trichlorobenzene	ND	0.5	ND	0.5

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Laboratory Report

CLAYTON ENVIRONMENTAL CONSULTANTS
5785 CORPORATE AVENUE
CYPRESS, CA 90630
ATTN: MR. ANDRE LAMONTAGNE

Analysis No.: G-9113408-003
Date Sampled: 14-MAY-1991
Date Sample Rec'd: 14-MAY-1991
Sample Type: LIQUID

Project: (33043.00) STOODY

Volatile Organic Compounds, EPA 524.2 Surrogate Summary

Date	Parameter (Method)	Percent Recovery	Acceptable Range
16-MAY-1991	1,2 DICHLORETHANE-D4 (EPA 524.2)	99	74-134
16-MAY-1991	TOLUENE-D8 (EPA 524.2)	97	78-126
16-MAY-1991	BROMOFLUOROBENZENE (EPA 524.2)	94	82-121

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Laboratory Report

CLAYTON ENVIRONMENTAL CONSULTANTS
5785 CORPORATE AVENUE
CYPRESS, CA 90630
ATTN: MR. ANDRE LAMONTAGNE

Analysis No.: G-9113408-004
Date Sampled: 14-MAY-1991
Date Sample Rec'd: 14-MAY-1991
Sample Type: LIQUID
Date Prepared: 16-MAY-1991
Prep Method: EPA 5030 By: LR
Date Analyzed: 16-MAY-1991 By: LR

Project: (33043.00) STOODY
Sample ID: MW-4

Volatile Organic Compounds, EPA 524.2

Units: ug/L

Parameter	Sample Result	Sample RL	Blank Result	Blank RL
Dichlorodifluoromethane	ND	0.5	ND	0.5
Chloromethane	ND	0.5	ND	0.5
Bromomethane	ND	0.5	ND	0.5
Vinyl Chloride	ND	0.5	ND	0.5
Chloroethane	ND	0.5	ND	0.5
Methylene Chloride	ND	0.5	ND	0.5
Trichlorofluoromethane	1.3	0.5	ND	0.5
1,1-Dichloroethene	12	0.5	ND	0.5
trans-1,2-Dichloroethene	ND	0.5	ND	0.5
cis-1,2-Dichloroethene	2.7	0.5	ND	0.5
1,1-Dichloroethane	ND	0.5	ND	0.5
2,2-Dichloropropane	ND	0.5	ND	0.5
Bromochloromethane	ND	0.5	ND	0.5
Chloroform	0.52	0.5	ND	0.5
1,1-Dichloropropene	ND	0.5	ND	0.5
1,2-Dichloroethane	ND	0.5	ND	0.5
Dibromomethane	ND	0.5	ND	0.5
1,1,1-Trichloroethane	1.1	0.5	ND	0.5
Carbon Tetrachloride	ND	0.5	ND	0.5
Bromodichloromethane	ND	0.5	ND	0.5
1,2-Dichloropropane	ND	0.5	ND	0.5
1,3-Dichloropropane	ND	0.5	ND	0.5
Trichloroethene	30	0.5	ND	0.5
Dibromochloromethane	ND	0.5	ND	0.5
1,1,2-Trichloroethane	ND	0.5	ND	0.5
Benzene	ND	0.5	ND	0.5
Bromoform	ND	0.5	ND	0.5
Tetrachloroethene	92	0.5	ND	0.5
1,2-Dibromoethane	ND	0.5	ND	0.5
1,1,1,2-Tetrachloroethane	ND	0.5	ND	0.5
1,1,2,2-Tetrachloroethane	ND	0.5	ND	0.5
Toluene	ND	0.5	ND	0.5
Chlorobenzene	ND	0.5	ND	0.5
Ethylbenzene	ND	0.5	ND	0.5
p,m-Xylene	ND	0.5	ND	0.5
o-Xylene	ND	0.5	ND	0.5
Styrene	ND	0.5	ND	0.5
Isopropylbenzene	ND	0.5	ND	0.5
Bromobenzene	ND	0.5	ND	0.5

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Laboratory Report

CLAYTON ENVIRONMENTAL CONSULTANTS
5785 CORPORATE AVENUE
CYPRESS, CA 90630
ATTN: MR. ANDRE LAMONTAGNE

Analysis No.: G-9113408-004
Date Sampled: 14-MAY-1991
Date Sample Rec'd: 14-MAY-1991
Sample Type: LIQUID
Date Prepared: 16-MAY-1991
Prep Method: EPA 5030 By: LR
Date Analyzed: 16-MAY-1991 By: LR

Project: (33043.00) STOODY
Sample ID: MW-4

Volatile Organic Compounds, EPA 524.2

Units: ug/L

Parameter	Sample Result	Sample RL	Blank Result	Blank RL
1,2,3-Trichloropropane	ND	0.5	ND	0.5
2-Chlorotoluene	ND	0.5	ND	0.5
n-Propylbenzene	ND	0.5	ND	0.5
1,3,5-Trimethylbenzene	ND	0.5	ND	0.5
4-Chlorotoluene	ND	0.5	ND	0.5
tert-Butylbenzene	ND	0.5	ND	0.5
1,2,4-Trimethylbenzene	ND	0.5	ND	0.5
sec-Butylbenzene	ND	0.5	ND	0.5
p-Isopropyltoluene	ND	0.5	ND	0.5
1,3-Dichlorobenzene	ND	0.5	ND	0.5
1,4-Dichlorobenzene	ND	0.5	ND	0.5
n-Butylbenzene	ND	0.5	ND	0.5
1,2-Dichlorobenzene	ND	0.5	ND	0.5
1,2,4-Trichlorobenzene	ND	0.5	ND	0.5
1,2-Dibromo-3-chloropropane	ND	0.5	ND	0.5
Hexachlorobutadiene	ND	0.5	ND	0.5
Naphthalene	ND	0.5	ND	0.5
1,2,3-Trichlorobenzene	ND	0.5	ND	0.5

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Laboratory Report

CLAYTON ENVIRONMENTAL CONSULTANTS
5785 CORPORATE AVENUE
CYPRESS, CA 90630
ATTN: MR. ANDRE LAMONTAGNE

Analysis No.: G-9113408-004
Date Sampled: 14-MAY-1991
Date Sample Rec'd: 14-MAY-1991
Sample Type: LIQUID

Project: (33043.00) STOODY

Volatile Organic Compounds, EPA 524.2 Surrogate Summary

Date	Parameter (Method)	Percent Recovery	Acceptable Range
16-MAY-1991	1,2 DICHLORETHANE-D4 (EPA 524.2)	99	74-134
16-MAY-1991	TOLUENE-D8 (EPA 524.2)	91	78-126
16-MAY-1991	BROMOFLUOROBENZENE (EPA 524.2)	89	82-121

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Laboratory Report

CLAYTON ENVIRONMENTAL CONSULTANTS
5785 CORPORATE AVENUE
CYPRESS, CA 90630
ATTN: MR. ANDRE LAMONTAGNE

Analysis No.: G-9113408-005
Date Sampled: 14-MAY-1991
Date Sample Rec'd: 14-MAY-1991
Sample Type: LIQUID
Date Prepared: 7-MAY-1991
Prep Method: EPA 5030 By: LR
Date Analyzed: 7-MAY-1991 By: LR

Project: (33043.00) STOODY
Sample ID: MW-5

Volatile Organic Compounds, EPA 524.2

Units: ug/L

Parameter	Sample Result	Sample RL	Blank Result	Blank RL	FN
Dichlorodifluoromethane	ND	2.5	ND	0.5	
Chloromethane	ND	2.5	ND	0.5	
Bromomethane	ND	2.5	ND	0.5	
Vinyl Chloride	ND	2.5	ND	0.5	
Chloroethane	ND	2.5	ND	0.5	
Methylene Chloride	ND	2.5	1.1	0.5	#
Trichlorofluoromethane	ND	2.5	ND	0.5	
1,1-Dichloroethene	16	2.5	ND	0.5	
trans-1,2-Dichloroethene	ND	2.5	ND	0.5	
cis-1,2-Dichloroethene	2.7	2.5	ND	0.5	
1,1-Dichloroethane	ND	2.5	ND	0.5	
2,2-Dichloropropane	ND	2.5	ND	0.5	
Bromochloromethane	ND	2.5	ND	0.5	
Chloroform	ND	2.5	ND	0.5	
1,1-Dichloropropene	ND	2.5	ND	0.5	
1,2-Dichloroethane	ND	2.5	ND	0.5	
Dibromomethane	ND	2.5	ND	0.5	
1,1,1-Trichloroethane	ND	2.5	ND	0.5	
Carbon Tetrachloride	ND	2.5	ND	0.5	
Bromodichloromethane	ND	2.5	ND	0.5	
1,2-Dichloropropane	ND	2.5	ND	0.5	
1,3-Dichloropropane	ND	2.5	ND	0.5	
Trichloroethene	ND	2.5	ND	0.5	
Dibromochloromethane	ND	2.5	ND	0.5	
1,1,2-Trichloroethane	ND	2.5	ND	0.5	
Benzene	ND	2.5	ND	0.5	
Bromoform	ND	2.5	ND	0.5	
Tetrachloroethene	130	2.5	ND	0.5	
1,2-Dibromoethane	ND	2.5	ND	0.5	
1,1,1,2-Tetrachloroethane	ND	2.5	ND	0.5	
1,1,2,2-Tetrachloroethane	ND	2.5	ND	0.5	
Toluene	ND	2.5	ND	0.5	
Chlorobenzene	ND	2.5	ND	0.5	
Ethylbenzene	ND	2.5	ND	0.5	

Analyte associated with sample processing and analysis in the lab environment. An acceptable method blank must contain less than five times the reporting limit of this analyte for this method.

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Laboratory Report

CLAYTON ENVIRONMENTAL CONSULTANTS
5785 CORPORATE AVENUE
CYPRESS, CA 90630
ATTN: MR. ANDRE LAMONTAGNE

Analysis No.: G-9113408-005
Date Sampled: 14-MAY-1991
Date Sample Rec'd: 14-MAY-1991
Sample Type: LIQUID
Date Prepared: 7-MAY-1991
Prep Method: EPA 5030 By: LR
Date Analyzed: 7-MAY-1991 By: LR

Project: (33043.00) STOODY
Sample ID: MW-5

Volatile Organic Compounds, EPA 524.2

Units: ug/L

Parameter	Sample Result	Sample RL	Blank Result	Blank RL
p,m-Xylene	ND	2.5	ND	0.5
o-Xylene	ND	2.5	ND	0.5
Styrene	ND	2.5	ND	0.5
Isopropylbenzene	ND	2.5	ND	0.5
Bromobenzene	ND	2.5	ND	0.5
1,2,3-Trichloropropane	ND	2.5	ND	0.5
2-Chlorotoluene	ND	2.5	ND	0.5
n-Propylbenzene	ND	2.5	ND	0.5
1,3,5-Trimethylbenzene	ND	2.5	ND	0.5
4-Chlorotoluene	ND	2.5	ND	0.5
tert-Butylbenzene	ND	2.5	ND	0.5
1,2,4-Trimethylbenzene	ND	2.5	ND	0.5
sec-Butylbenzene	ND	2.5	ND	0.5
p-Isopropyltoluene	ND	2.5	ND	0.5
1,3-Dichlorobenzene	ND	2.5	ND	0.5
1,4-Dichlorobenzene	ND	2.5	ND	0.5
n-Butylbenzene	ND	2.5	ND	0.5
1,2-Dichlorobenzene	ND	2.5	ND	0.5
1,2,4-Trichlorobenzene	ND	2.5	ND	0.5
1,2-Dibromo-3-chloropropane	ND	2.5	ND	0.5
Hexachlorobutadiene	ND	2.5	ND	0.5
Naphthalene	ND	2.5	ND	0.5
1,2,3-Trichlorobenzene	ND	2.5	ND	0.5

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Laboratory Report

CLAYTON ENVIRONMENTAL CONSULTANTS
5785 CORPORATE AVENUE
CYPRESS, CA 90630
ATTN: MR. ANDRE LAMONTAGNE

Analysis No.: G-9113408-005
Date Sampled: 14-MAY-1991
Date Sample Rec'd: 14-MAY-1991
Sample Type: LIQUID

Project: (33043.00) STOODY

Volatile Organic Compounds, EPA 524.2 Surrogate Summary

Date	Parameter (Method)	Percent Recovery	Acceptable Range
7-MAY-1991	1,2 DICHLORETHANE-D4 (EPA 524.2)	100	74-134
7-MAY-1991	TOLUENE-D8 (EPA 524.2)	96	78-126
7-MAY-1991	BROMOFLUOROBENZENE (EPA 524.2)	96	82-121

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Laboratory Report

CLAYTON ENVIRONMENTAL CONSULTANTS
5785 CORPORATE AVENUE
CYPRESS, CA 90630
ATTN: MR. ANDRE LAMONTAGNE
Project: (33043.00) STOODY

Analysis No.: G-9113408-001/005
Date Sampled: 14-MAY-1991
Date Sample Rec'd: 14-MAY-1991
Sample Type: LIQUID

Matrix Spike/Matrix Spike Duplicate Report

Sample Number	Parameter (Method)	Units	Observed Concentration Sample	MS	MSD	Amt. Spiked	% Recovery MS	MSD	Avg.	% RPD
9112602-001L	TPH RECOVERABLE (EPA 418.1-L)	mg/L	ND	7.0	6.8	8.0	87	85	86	2
9111606-015	1,1-DICHLOROETHENE (EPA 524.2)	ug/L	ND	7.7	6.4	7.00	110	91	100	18
9111606-015	TRICHLOROETHENE (EPA 524.2)	ug/L	ND	5.0	4.6	5.00	100	92	96	8
9111606-015	BENZENE (EPA 524.2)	ug/L	ND	4.8	4.4	5.00	96	88	92	8
9111606-015	TOLUENE (EPA 524.2)	ug/L	ND	9.4	8.9	10.0	94	89	91	5
9111606-015	CHLOROBENZENE (EPA 524.2)	ug/L	ND	10.1	9.3	10.0	101	93	97	8

Matrix Spike/Matrix Spike Duplicate Report Cross-Reference

QC Batch	Date	Parameter (Method)	Sample Nos.
9111606-015	15-MAY-1991	1,1-DICHLOROETHENE (EPA 524.2)	G-9113408-001
			G-9113408-002
			G-9113408-003
			G-9113408-004
			G-9113408-005
	15-MAY-1991	TRICHLOROETHENE (EPA 524.2)	G-9113408-001
			G-9113408-002
			G-9113408-003
			G-9113408-004
			G-9113408-005
	15-MAY-1991	BENZENE (EPA 524.2)	G-9113408-001
			G-9113408-002
			G-9113408-003
			G-9113408-004
			G-9113408-005
	15-MAY-1991	TOLUENE (EPA 524.2)	G-9113408-001
			G-9113408-002
			G-9113408-003
			G-9113408-004
			G-9113408-005
	15-MAY-1991	CHLOROBENZENE (EPA 524.2)	G-9113408-001
			G-9113408-002
			G-9113408-003
			G-9113408-004
			G-9113408-005
9112602-001L	15-MAY-1991	TPH RECOVERABLE (EPA 418.1-L)	G-9113408-005

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Laboratory Report

CLAYTON ENVIRONMENTAL CONSULTANTS
5785 CORPORATE AVENUE
CYPRESS, CA 90630
ATTN: MR. ANDRE LAMONTAGNE
Project: (33043.00) STOODY

Analysis No.: G-9113408-001/005
Date Sampled: 14-MAY-1991
Date Sample Rec'd: 14-MAY-1991
Sample Type: LIQUID

Laboratory Control Sample Report

QC Batch	Parameter (Method)	Amt. Spiked	Units	Avg. Spike Recov.	Acceptable Range	Rel. Pct. Diff.	Acceptable Range
L91134047	TURBIDITY (EPA 180.1)	5.00	NTU	100	80-120	0.	20
L91136027	1,1-DICHLOROETHENE (EPA 524.2)	7.00	ug/L	107	64-116	1.	13
L91136027	TRICHLOROETHENE (EPA 524.2)	5.00	ug/L	100	80-117	0.	15
L91136027	BENZENE (EPA 524.2)	5.00	ug/L	100	81-119	0.	14
L91136027	TOLUENE (EPA 524.2)	10.0	ug/L	99	77-120	0.	12
L91136027	CHLOROBENZENE (EPA 524.2)	10.0	ug/L	104	81-121	5.	14

Laboratory Control Sample Report Cross-Reference

QC Batch	Date	Parameter (Method)	Sample Nos.
L91134047	14-MAY-1991	TURBIDITY (EPA 180.1)	G-9113408-001
			G-9113408-002
			G-9113408-003
			G-9113408-004
			G-9113408-005
L91136027	15-MAY-1991	1,1-DICHLOROETHENE (EPA 524.2)	G-9113408-001
			G-9113408-002
			G-9113408-003
			G-9113408-004
			G-9113408-005
		TRICHLOROETHENE (EPA 524.2)	G-9113408-001
			G-9113408-002
			G-9113408-003
			G-9113408-004
			G-9113408-005
		BENZENE (EPA 524.2)	G-9113408-001
			G-9113408-002
			G-9113408-003
			G-9113408-004
			G-9113408-005
		TOLUENE (EPA 524.2)	G-9113408-001
			G-9113408-002
			G-9113408-003
			G-9113408-004
			G-9113408-005
		CHLOROBENZENE (EPA 524.2)	G-9113408-001
			G-9113408-002
			G-9113408-003
			G-9113408-004
			G-9113408-005

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( ) 7440 Lincoln Way, Garden Grove, CA 92641, (714) 898 6370
( ) 2810 Bunsen Ave., Unit A Ventura, CA 93003, (805) 650 0546
( ) 2325 Skyway Dr., Unit K, Santa Maria, CA 93455, (805) 922 2776
( ) 9537 Telstar Ave., Unit 118, El Monte, CA 91731, (818) 442 8400
( ) Mobile Labs, (800) ENSECO 8

CHAIN OF CUSTODY RECORD

Date 14 MAY 91 Page 1 of 1

Lab Number C-911345

CLIENT Clayton Env. Cons.

ADDRESS 5785 Corporate Ave. #150
Cypress

PROJECT NAME
Study 33043.00

CONTRACT / PURCHASE ORDER / QUOTE #

PROJECT MANAGER
Hank LaMontagne

PHONE NUMBER
714 229 4500

SITE CONTACT

ANALYSES

Sample No. / Identification	Date	Time	Lab Sample Number	SAMPLE TYPE LIQ.	AIR	SOLID	No. of Containers	Turbidity	5242	415.1 w/MCL					Sample Condition/ REMARKS
[redacted] MW-1	5/14/91	Am		X			5	X	X						
MW-2		Am		X			5	X	X						
MW-3		Am		X			5	X	X						
MW-4		Am		X			5	X	X						
MW-5		Pm		X			6	X	X	X					

SAMPLERS: (Signature)

Relinquished by: (Signature)

Relinquished by: (Signature)

Received by: (Signature) Date Time

Received by: (Signature) Date Time

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under the Enseco Terms and Conditions, unless a contract or purchase order has been executed and is cited above.

Relinquished by: (Signature)	Date	Time	Received for Laboratory by:	Date RECEIVED	Time	Date ACCEPTED	Time
				5-14-91	3 10pm		

Method of Shipment:

Special Instructions:
TURBIDITY 24 HR. 5242 with MW 7 days 415.1 with 7 days
Please FAX results to Dan (714) 229-4500

SAMPLE DISPOSITION:
1. Storage time requested: _____ days
(Samples will be stored for 30 days without additional charges; thereafter storage charges will be billed at the published rates.)
2. Sample to be returned to client: Y N
(Enseco will dispose of unreturned samples at no extra charge. Disposal will be by incineration wherever possible; otherwise, as appropriate, according to legal requirements.)

ENS – 1145

DISTRIBUTION: White with report, Yellow to Enseco, Pink to Courier, Gold to Sample Control